REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1 and 3-19 are currently pending in the present application, Claim 2 having been canceled without prejudice or disclaimer by way of the present amendment, and Claims 1, 3, 4, 6, 8, 11, and 14-19 having been amended. No new matter has been added.[1]

In the outstanding Office Action, Claims 1, 2, 4, 6, 7, and 10 were rejected under 35 U.S.C. § 102(b) as anticipated by Amako, et al. (U.S. Pat. No. 5,589,955, hereinafter "Amako '955"); Claims 1, 2, 12, 14-17, and 19 were rejected under 35 U.S.C. § 102(b) as anticipated by Amako, et al. (U.S. Pat. No. 5,497,254, hereinafter "Amako '254"); Claims 3 and 18 were rejected under 35 U.S.C. § 103(a) as unpatentable over Amako '254 in view of Hamano, et al. (U.S. Pat. Pub. No. 2004/0179253, hereinafter "Hamano"); Claim 4 was rejected under 35 U.S.C. § 103(a) as unpatentable over Amako '955 in view of Amako '254; Claim 13 was rejected under 35 U.S.C. § 103(a) as unpatentable over Amako '955 in view of Yamada, et al. (U.S. Pat. Pub. No. 2003/0152756, hereinafter "Yamada"); and Claims 8, 9, and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over Amako '955 in view of Thompson, Jr., et al. (U.S. Pat. No. 6,717,104, hereinafter "Thompson").

Claim 1 has been amended to incorporate the subject matter of original Claim 2. Claim 1 recites, *inter alia*, a laser processing apparatus, comprising:

> a synthetic data generator configured to generate synthetic data by combining hologram image data representing a pattern image to be processed with position displacement hologram data for shifting the pattern image to a prescribed position... wherein
>
> said position displacement hologram data includes either a horizontal hologram data set representing displacement in a direction parallel to the processed surface, a vertical hologram data set representing displacement in a direction perpendicular to the processed surface, or a combination of the horizontal and vertical hologram data.

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[1] Independent Claims 1, 14, and 16 are amended to incorporate the subject matter of Claim 2. Claims 1, 3, 4, 6, 8, 11, and 14-19 are amended to address cosmetic matters of form.

Regarding the rejection of Claim 2 (which is now relevant to independent Claims 1, 14, and 16) under 35 U.S.C. § 102(b) as anticipated by both Amako '955 and Amako '254, Applicants respectfully traverse the rejections.

Turning first to Amako '955, the Office Action asserts Figs. 1 and 2, and col. 6, lines 27-29, of Amako '955 allegedly teaches the displacement hologram data includes either a horizontal hologram data set representing displacement in a direction parallel to the processed surface, and a vertical hologram data set representing displacement in a direction perpendicular to the processed surface, or a combination of the horizontal and vertical hologram data sets.

Regarding data, this cited portion of Amako '955 merely describes:

a. the data input to the spatial light modulator is prepared based on the complex amplitude distribution (at line 33);

b. there is a means to store data input to the spatial light modulator (at line 37); and

c. the means that prepares the data input to the spatial light modulator is equipped with at least a means for (i) Fourier transformation (at line 41); (ii) performing inverse tangent operations (at lines 45-46); (iii) generating random numbers (at lines 50-51); and (iv) generating the lens phase distribution (at line 56).

However, Amako '955 does not describe a separate and distinct horizontal data set or a separate and distinct vertical data set. Further, col. 6, lines 27-29, cited by the Office, merely describes "[t]he position and size at which the pattern is reproduced can be freely changed by selecting the focal length of the lens phase." Even assuming *arguendo* this suggests the lens phase would adjust the image in a perpendicular direction to the processed surface, Amako '955 does not disclose a separate and distinct vertical hologram data set for such adjustment, or any combination of a separate and distinct vertical data set with a separate and distinct horizontal data set.

Indeed, Amako '955 is silent regarding displacement hologram data including either a horizontal hologram data set representing displacement in a direction parallel to the processed

surface, and a vertical hologram data set representing displacement in a direction perpendicular to the processed surface, or a combination of the horizontal and vertical hologram data sets.

Turning to Amako '254, the Office Action asserts Figs. 18 and 19 allegedly teach all of the above-noted elements of original Claim 2. However, col. 13, lines 23-26, of Amako '254 describes "[t]he focused point can be varied from point F1 to point F2 by changing the information input to liquid crystal device 1801." At best, this *may* be interpreted as a vertical hologram data set. Additionally, col. 13, lines 39-55, of Amako '254 describes a lens array 1903 consisting of spherical lenses having the same focal length, and a composite lens 1902 which is a combination of four spherical lenses having different focal lengths. At best, this *may* be interpreted as a combination of horizontal and vertical hologram data sets in both horizontal and vertical directions.

Nonetheless, even assuming *arguendo* these above-noted possible interpretations in Amako '254, there is no disclosure in Amako '254 of a separate and distinct vertical hologram data set or a separate and distinct horizontal data set for such horizontal and vertical adjustments. Further, there is no disclosure in Amako '254 of any combination of a separate and distinct vertical data set with a separate and distinct horizontal data set.

Indeed, Amako '254 is silent regarding displacement hologram data including either a horizontal hologram data set representing displacement in a direction parallel to the processed surface, and a vertical hologram data set representing displacement in a direction perpendicular to the processed surface, or a combination of the horizontal and vertical hologram data sets.

Applicants respectfully submit Amako '955 and Amako '254, either separately or combined, do not disclose or suggest "said position displacement hologram data includes either a horizontal hologram data set representing displacement in a direction parallel to the

processed surface, a vertical hologram data set representing displacement in a direction perpendicular to the processed surface, or a combination of the horizontal and vertical hologram data," as recited in Claim 1.

Therefore, Applicants respectfully submit that Amako '955 and Amako '254 do not anticipate or render obvious the features of Claim 1. Accordingly, independent Claim 1 and the claims dependent therefrom are believed to patently define over Amako '955 and Amako '254.

Independent Claims 14 and 16, while differing in scope and statutory class from Claim 1, patentably define over Amako '955 and Amako '254 for substantially the same reasons as Claim 1. Accordingly, it is respectfully submitted that Amako '955 and Amako '254 do not anticipate or render obvious the features of independent Claims 14 and 16. Therefore, independent Claims 14 and 16 and claims dependent therefrom are believed to patentably define over Amako '955 and Amako '254.

With regard to the rejection of Claims 3 and 18 as unpatentable over Amako '254 in view of Hamano, it is noted that Claims 3 and 18 are dependent from Claim 1 and 16, respectively, and thus are believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Hamano does not cure any of the above-noted deficiencies of Amako '254. Accordingly, it is respectfully submitted that Claims 3 and 18 are patentable over Amako '254 and Hamano.

With regard to the rejection of Claim 4 as unpatentable over Amako '955 in view of Amako '254, it is noted that Claim 4 is dependent from Claim 1, and thus is believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Amako '254 does not cure any of the above-noted deficiencies of Amako '955. Accordingly, it is respectfully submitted that Claim 4 is patentable over Amako '955 and Amako '254.

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With regard to the rejection of Claim 13 as unpatentable over <u>Amako '955</u> in view of

<u>Yamada</u>, it is noted that Claim 13 is dependent from Claim 1, and thus is believed to be

patentable for at least the reasons discussed above. Further, it is respectfully submitted that

<u>Yamada</u> does not cure any of the above-noted deficiencies of <u>Amako '955</u>. Accordingly, it is

respectfully submitted that Claim 13 is patentable over <u>Amako '955</u> and <u>Yamada</u>.
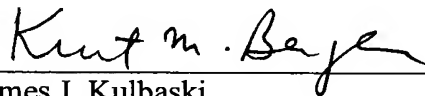
With regard to the rejection of Claims 8, 9, and 11 as unpatentable over <u>Amako '955</u>

in view of <u>Thompson</u>, it is noted that Claims 8, 9, and 11 are dependent from Claim 1, and

thus are believed to be patentable for at least the reasons discussed above. Further, it is

respectfully submitted that <u>Thompson</u> does not cure any of the above-noted deficiencies of

<u>Amako '955</u>. Accordingly, it is respectfully submitted that Claims 8, 9, and 11 are patentable

over <u>Amako '955</u> and <u>Thompson</u>.

Applicants respectfully request that the rejections under 35 U.S.C. § 102 and § 103 be

withdrawn.

Consequently, in view of the present amendment and in light of the above

discussions, the outstanding grounds for rejection are believed to have been overcome. The

application as amended herewith is believed to be in condition for formal allowance. An

early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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